MathQuizz01: Polynomials and Equations

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Question 1

Simplify: $(3x+4)^2 - (2x-5)(x+3)$.

Question 2

Find the roots of the equation: $x^2 - 6x + 9 = 0$.

Question 3

Expand and simplify: $(x-3)(x+5)(x-2)$.

Question 4

Solve for x: $2x^3 - 8 = 0$.

Question 5

Factorize completely: $x^2 - 5x - 14$.

Question 6

If $f(x) = x^3 - 3x^2 + x - 5$, find $f(2)$.

Question 7

Solve: $4x^2 - 12x + 9 = 0$.

Question 8

Divide $x^3 - 6x^2 + 11x - 6$ by $x - 2$.

Question 9

Find the value of k if $x^2 + kx + 16 = 0$ has a double root.

Question 10

Expand: $(2x - 3)^3$.

Question 11

Solve for x: $3x + 7 = 2x - 5$.

Question 12

Write the polynomial in standard form: $5 + 2x - x^3 + 4x^2$.

Question 13

If $x = 2$ is a root of $x^3 + ax^2 + bx + 2 = 0$, find the values of a and b.

Question 14

Simplify $x^2 - 4 / x + 2$.

Question 15

Find the degree and leading coefficient of $-3x^4 + 5x^3 - x + 7$.